

In the Claims

1. (Original) A peripheral device for use with a computer system comprising:
a housing adapted to fit within a user's palm and slide over a medium;
an optical sensor having plural sensing elements and producing image signals;
a lens for imaging the medium onto the sensor;
circuitry coupled to the sensor and disposed within the housing for processing the signals from the sensor and producing corresponding output data; and
transfer means for relaying the output data from the peripheral device to the computer system;
wherein said sensor is useful in acquiring optically-encoded multi-bit information from said medium for use by said computer system.

2. (Canceled)

3. (Currently Amended) The device of claim ~~1~~ 4 in which the transfer means is a wireless link.

4. (Currently Amended) The device of claim 1 in which the circuitry within said housing analyzes the image signals and produces multi-bit information corresponding thereto.

5. (Original) The device of claim 1 in which the circuitry comprises a decoder for discerning steganographically-encoded information represented in said image signals.

6-7. (Canceled)

8. (Currently Amended) A system including a peripheral device ~~for use with~~ and a computer system apparatus comprising:
a housing adapted to fit within a user's palm and ~~slide~~ position over a medium;
an optical sensor having plural sensing elements and producing image signals;

a lens for imaging the medium onto the sensor;
circuitry coupled to the sensor and disposed within the housing for processing ~~the~~ signals from the sensor corresponding to a machine-readable indicia, and producing corresponding multi-bit binary output data decoded from said indicia; and
transfer means for relaying the output data from the ~~peripheral~~ device to the computer system apparatus;

wherein ~~said sensor is useful in acquiring optically encoded multi-bit information from said medium for use by said computer system, and~~ said circuitry is integrated on a common substrate with said sensing elements.

9. (Currently Amended) The method device of claim 1 in which the optically encoded information comprises a plural-bit identifier.

10. (Currently Amended) A method of interacting with printed material using a peripheral device, the peripheral device providing positional data to an associated computer and including an optical sensing system comprising plural optical sensing elements, the method comprising:

positioning the device over the printed material;
generating optical sensor data from said optical sensing system, said data corresponding to a machine-readable indicia formed on the printed material;
processing performing a steganographic decoding process on said optical sensor data to produce plural-bit data corresponding to said machine-readable indicia;
and
providing said plural-bit data to said computer.

11. (Canceled)

12. (New) The method of claim 10 in which the machine-readable indicia is hidden in artwork.

13. (New) The method of claim 12 in which the artwork comprises a photograph.

14. (New) The method of claim 10 in which the plural-bit data is associated with an internet address, and the method further includes downloading data to said computer from said internet address.

15. (New) The method of claim 10 in which the peripheral device includes a user interface control, and the method includes performing said steganographic decoding process only when said control is activated by a user.

16. (New) The method of claim 15 in which the control is a button.

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17. (New) The method of claim 10 in which said steganographic decoding is performed by apparatus within the peripheral.

18. (New) The method of claim 17 in which plural bit data from said decoding is transmitted, by wireless transmission, to an apparatus remote from the peripheral.

19. (New) The method of claim 10 in which at least part of said optical sensor data is transferred from the peripheral, and said steganographic decoding is performed on said data in apparatus remote from said peripheral.

20. (New) The method of claim 19 in which said optical sensor data is transferred from the peripheral to said remote apparatus by wireless transmission.

21. (New) The system of claim 8 in which the machine-readable indicia comprises artwork that is steganographically encoded to convey multi-bit binary data.

22. (New) The system of claim 21 in which the artwork comprises a photograph.

23. (New) The system of claim 21 in which:
the device includes a user interface control; and
the circuitry performs steganographic decoding only when said control is
activated by a user.

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24. (New) The system of claim 8 in which the multi-bit data is associated with
an internet address, and the system includes a display for presenting image data
downloaded from said internet address.
